UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

June 5, 2012

Mr. Jaime De La Cruz
Chair
San Benito Board of Supervisors
481 Fourth Street
Hollister, CA 95023

Dear Mr. De La Cruz:

U.S. Environmental Protection Agency (EPA) Administrator Lisa Jackson and Region 9 Administrator Jared Blumenfeld have asked me to respond to your letter of May 15, 2012, requesting that EPA re-evaluate our risk assessment for the Clear Creek Management Area (CCMA). Please be assured that EPA conducted the Clear Creek Management Area Asbestos Exposure and Human Health Risk Assessment using the best available science and consistent with EPA procedures and policy.

In your letter, you request that EPA re-evaluate our Assessment to reconcile the differing conclusions of our study and the subsequent report prepared by the International Environmental Research Foundation (IERF) under contract to the Off-Highway Motor Vehicle Recreation Division of California State Parks. EPA did evaluate the IERF report and concluded that there are no significant differences in the asbestos exposure measurements between the EPA study and the sampling conducted by IERF. In the EPA study, hundreds of air samples were collected from the breathing zone of U.S. Coast Guard and EPA contractor employees as they participated in typical CCMA recreational activities. For the motorcycle riding, ATV riding, and SUV driving sampling, the effort was designed to measure the asbestos exposures to both lead and trailing riders/drivers under typical CCMA use conditions and riding practices, and the sampling was repeated on eight separate days over the course of a year to gather exposure data under different weather/moisture conditions. Our data showed that asbestos exposures from the motorized activities were significant, and the subsequent risk analysis showed that the exposures of typical CCMA visitors could result in lifetime excess cancer risks above the range that EPA considers to be acceptable.

In the IERF study, eight motorcycle riding activity air samples were collected over a two day period in April 2010. The riders were instructed to keep a distance between them so the trailing rider would not encounter the dust cloud of the lead rider. The IERF study then used the exposure data and compared it to several benchmarks and also estimated excess lifetime cancer risk.

While the asbestos concentrations that IERF reported for their air samples are comparable to concentrations EPA measured for the same activities under similar conditions, the two studies differ in the assessment of the risk posed by the exposures. EPA has concluded that the risk comparisons used by IERF are inappropriate for a risk assessment of asbestos exposures to the general public and result in a deceptively low estimation of risk. In particular, the IERF report discounts the exposures of children. More detail of our review of the IERF study is contained in the comment letter which EPA sent to Rick Cooper, Manager of the Bureau of Land Management Hollister Field Office, on May 12, 2011. A copy of the letter is enclosed for your information.

EPA conducted the CCMA Asbestos Exposure and Risk Assessment in a manner consistent with the best science and with accepted exposure and risk assessment methods and standards. We have no plans to re-visit our work at CCMA. Our study and findings have the full support of the California EPA Department of Toxic Substances Control (DTSC) and the Office of Environmental Health Hazard Assessment (OEHHA), which has publically stated that "...the methodology and conclusions contained in the document were scientifically justified..." Copies of the letters from DTSC and OEHHA are enclosed. If you have any further questions or concerns, please contact Jere Johnson, Remedial Project Manager, at 415-972-3094 or johnson.jere@epa.gov, or Daniel Stralka, Toxicologist, at 415-972-3048 or stralka.daniel@epa.gov.

Sincerely,

for Jane Diamond
Director
Superfund Division

Enclosures: EPA comment letter on IERF study, May 12, 2011
DTSC letter re: EPA Exposure and Risk Assessment, April 22, 2010
OEHHA letter re: EPA Exposure and Risk Assessment, May 4, 2010

Cc: Hon. Sam Farr
Jim Kenna, BLM
Rick Cooper, BLM
Phil Jenkins, State Parks
Stephen DiZio, DTSC
Steven Ross, DTSC
Melanie Marty, OEHHA
John Budroe, OEHHA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

May 12, 2011

Mr. Rick Cooper, Field Manager
Hollister Field Office
Bureau of Land Management
20 Hamilton Court
Hollister, CA 95023

Dear Mr. Cooper:

EPA has reviewed the report, "Preliminary Analysis of the Asbestos Exposures Associated with Motorcycle Riding and Hiking in the Clear Creek Management Area (CCMA) San Benito County, California", that was prepared by the International Environmental Research Foundation (IERF) under contract to California State Parks Off-Highway Motor Vehicle Recreation Division. IERF conducted air sampling to determine asbestos exposures during recreational activities in CCMA and collected a total of 8 motorcycle riding samples (lead and trailing rider on two days with two riding runs per day), two hiker samples, one sample from the outside of a vehicle, two ambient air samples, and two "control" samples. The study was designed to compare airborne asbestos exposures with those reported in earlier CCMA studies, specifically Cooper et al, 1979, and U.S. EPA 2008. IERF sampling was conducted April 22 and 23, 2010.

EPA Comments:

- We were not able to do an in-depth analysis of the IERF results because the report does not include the information necessary to allow an independent judgment of how the samples were collected and analyzed or a check of the validity of the conclusions. For example, the report never states what method was used to analyze the samples, and what fiber definitions and counting rules were employed. This is basic information that is key to a study of asbestos exposures, and is one of many technical parameters that would typically be presented in such a report. In addition, the report is missing information that would permit a reviewer to examine the basis for the reported fiber concentrations, i.e. volume of air, flow rate, flow rate quality control, total time, and number of grids counted. There is also little information on the meteorological conditions under which the samples were collected. These are all critical parameters that are easily supplied, but conspicuous in their absence in the study.

- If the IERF results are taken at face value and compared to the exposure levels reported in U.S. EPA 2008, the values are consistent with those EPA found under similar

meteorological conditions and with similar riding positions. Our independent evaluation of the weather conditions under which the IERF samples were collected indicates that the conditions are most comparable to the EPA wet season sampling event. While IERF used two riders for the motorcycle sampling, it biased the sample collection by keeping a distance of 15 to 20 feet between riders and directing the trailing rider to avoid or minimize exposure to dust generated by the lead rider. The IERF results for both riders are therefore most comparable to the EPA lead rider data. The resulting correlation between the IERF samples and the lead rider data collected by EPA for the different weather conditions is represented graphically on the attachments to this letter. The IERF results are plotted on Figure 4 taken from the U.S. EPA 2008 report, and in Figure A with a different scale focusing on the low concentration range. The individual sample points show the similar concentrations between the EPA and IERF samples. Although not presented on the figures, the ambient air results found by IERF are also in the same range as previously reported for CCMA in this season, and are lower than the activity samples.

- The risk assessment assumptions used in the report do not reflect typical CCMA use patterns and result in a deceptively low risk estimation. The IERF report bases its assessment of risk on the exposure that a 30-year old rider would incur from riding at CCMA for five days in one year under wet conditions and without coming within 20 feet of another rider or encountering any sort of dust cloud. This use assumption is inconsistent with known CCMA use patterns and presents an exposure that is significantly less than what is typically reported. The PTI Human Health Risk Assessment, which was prepared for BLM in 1992, estimated that five visitor days a year was a reasonable exposure level, but, based on user surveys and BLM CCMA visitor information that indicated more frequent use, also included a high estimate of 12 off-road rides a year. These rides occur during wet, moist, and dry meteorological conditions and involve groups containing both lead and trailing riders and adults and children. In addition, user information has shown that these exposures happen each year for many years or decades. Preparing a risk estimation for a total lifetime exposure of five days of essentially single riding under wet conditions is misleading and does not reflect the risk experienced by most CCMA users.

  The IERF report discounts the exposures of children. User surveys have shown that families are frequent visitors to CCMA and children ride the trails with their parents. The EPA study found that 64% of air samples collected at a child's breathing height contained more asbestos fibers than the paired adult sample. In addition, children are of special concern because a child's life expectancy exceeds the latency period for asbestos-related disease.

- The risk comparisons used by IERF in the study are incorrect and inappropriate to a risk assessment of recreational exposures of the general public. They also mislead a reader into believing that the exposures at CCMA do not present significant risk. The OSHA standard for asbestos is not a public health standard. It is designed to provide as much protection as is reasonably possible to healthy adults in a working environment with asbestos concentration air testing who are receiving regular medical monitoring for their

asbestos exposures. It is certainly not applicable to recreational exposures of the general public or children. In the preamble to the regulation, OSHA states that even for healthy adults "A significant risk remains at the PEL of 0.1 f/cc...", but concludes that "...the operation-specific work practices mandated in the standard will be a most cost-effective means of assuring that significant risk is eliminated to the extent feasible." Application of the U.S. EPA Integrated Risk Information System (IRIS) toxicity value for asbestos to the OSHA 0.1 f/cc standard finds that the exposure would result in excess lifetime cancers above the level that EPA considers to the acceptable. The IRIS toxicity value is the standard value that the U.S. EPA uses to assess exposures to asbestos and is designed to be protective of public health. The IRIS and the State of California Office of Environmental Health Hazard Assessment (OEHHA) asbestos toxicity values are the appropriate measures to be used to assess the risk of recreational exposures at CCMA. We have no comment on the Russian Federation "standard" cited in the IERF report and the World Health Organization background concentration of asbestos is not informative to the assessment of risk.

Overall, the IERF report appears to confirm the data from EPA's wet season sampling event, and does not offer any technical or scientific information that would alter EPA's risk evaluation of CCMA exposures. The conclusions of EPA's 2008 Asbestos Exposure and Human Health Risk Assessment remain unchanged:

Asbestos is a known human carcinogen. Despite the uncertainties inherent in risk assessment, the EPA evaluation of asbestos exposures and risks at the Clear Creek Management Area has led to some important conclusions.

- *The Activity Causes the Exposure – The concentration of asbestos in the breathing zone is directly related to the degree that an activity disturbs the soil and creates dust.*

- *Children Are of Special Concern – In a majority of the samples, the concentration of asbestos measured in the child's breathing zone exceeded the asbestos concentration in the companion adult sample. Further, a child's life expectancy exceeds the latency period for asbestos-related disease.*

- *The Higher the Exposure, the Higher the Risk – The activities with the highest exposure - motorcycling, ATV riding, and SUV driving/riding - had the highest corresponding excess lifetime cancer risk.*

- *Reducing the Exposure Will Reduce the Risk – The risk of developing asbestos-related disease is dependent on the level of exposure, the duration of exposure, and the time since first exposure. Reducing exposure will reduce the risk of developing asbestos-related cancers and debilitating and potentially fatal non-cancer disease.*

In summary, the asbestos exposures that EPA measured at CCMA are high and the resulting health risks are of concern.

Please do not hesitate to call us at 415-972-3048 (Daniel Stralka) or 415-972-3094 (Jere Johnson) if you have any questions.

Sincerely,

Original signed by/

Daniel Stralka
Toxicologist

Original signed by/

Jerelean M. Johnson
Remedial Project Manager

cc Daphne Greene, California State Parks
Gary Willard, Off-Highway Motor Vehicle Recreation Commission
Steven Ross, Department of Toxic Substances Control
Stephen DiZio, Department of Toxic Substances Control
John Budroe, Office of Environmental Health Hazard Assessment
Melanie Marty, Office of Environmental Health Hazard Assessment

Figure A: Comparison of Different Weather Conditions for Adult Receptors

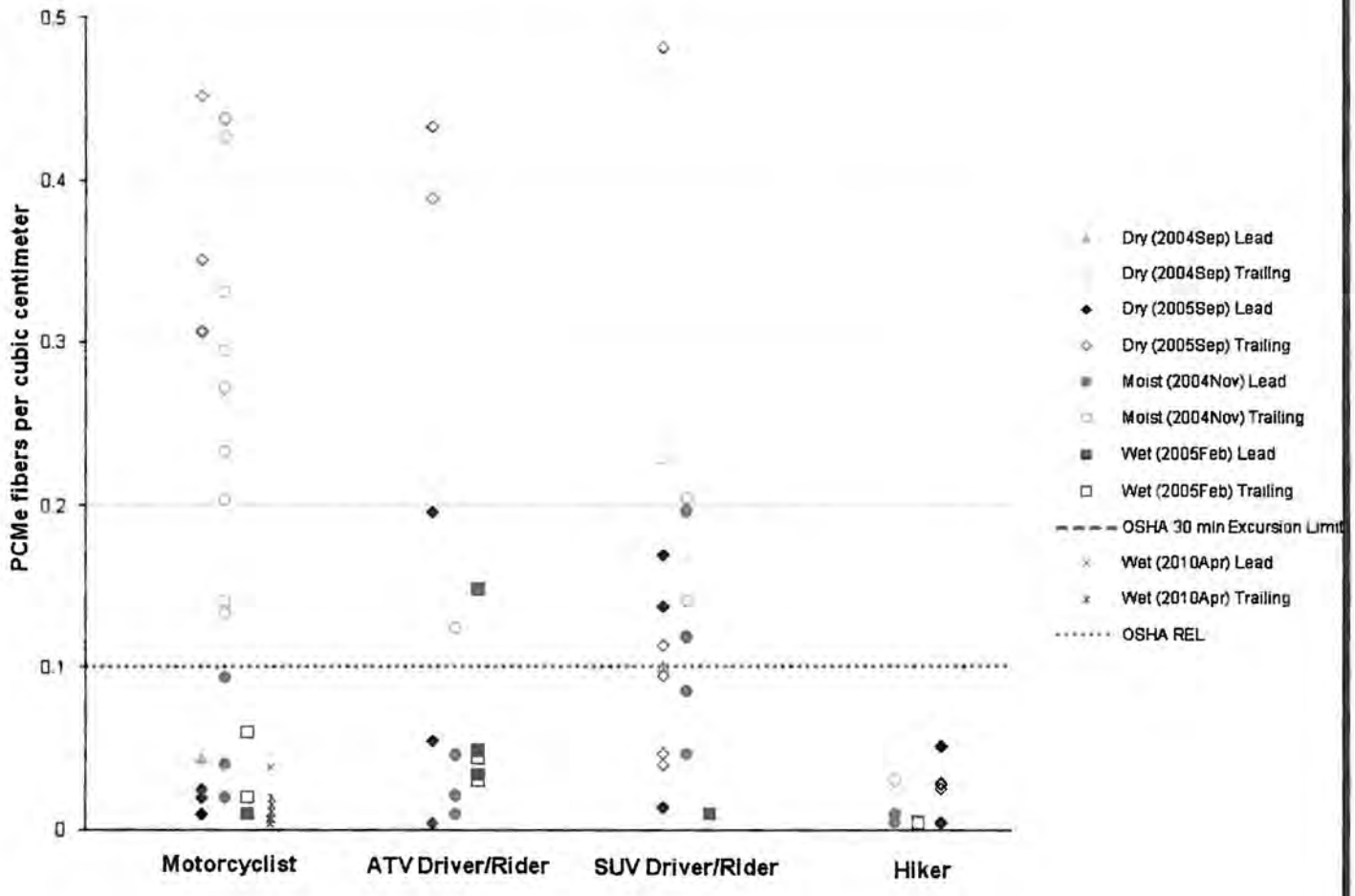
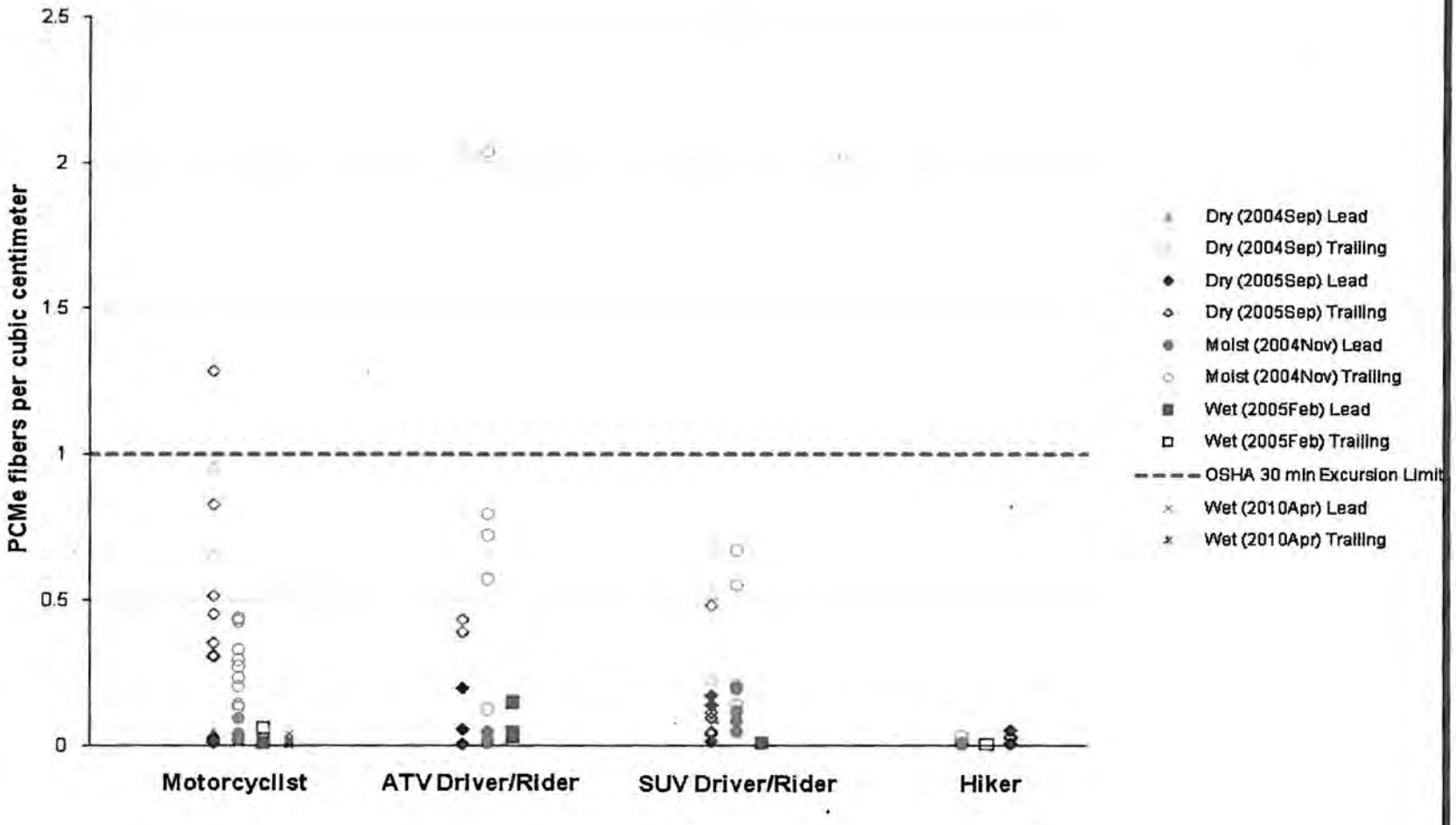


Figure 4: Comparison of Different Weather Conditions for Adult Receptors



Department of Toxic Substances Control

Linda S. Adams
Secretary for
Environmental Protection

Maziar Movassaghi
Acting Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Arnold Schwarzenegger
Governor

April 22, 2010

Mr. Gary Willard, Chair
OHMVR Commission
P.O. Box 942896
Sacramento, California 94296-0001

Certified Mail #: 7009 1410 0002 1448 6294

CLEAR CREEK MANAGEMENT AREA, CALIFORNIA

Dear Mr. Willard:

The purpose of this letter is to inform the Off-Highway Motor Vehicle Recreation Commission that the Department of Toxic Substances Control (DTSC) in consultation with the Office of Environmental Health Hazard Assessment (OEHHA) has been an active participant in the United States Environmental Protection Agency's (USEPA) efforts to assess risk to recreational users of the Clear Creek Management Area. For assessing activity based sampling scenarios, USEPA included the Department of Interior, Bureau of Land Management (BLM), DTSC, and OEHHA in the scoping of typical recreational uses. Results from activity based sampling were presented for review. Based on our review, DTSC supports USEPA conclusions concerning unacceptable risks from asbestos exposure and find that implementation of mitigation measures are necessary to reduce exposure to airborne asbestos generated by human activities. The assessment results leave little doubt that elevated excess life time cancer risk exists, particularly to children, from asbestos exposure at CCMA. Asbestos is a known human carcinogen that causes lung cancer and other diseases. The Commission should be aware the risk evaluation does not include evaluation of the occurrence of non-cancer potential health effects due to asbestos exposure which could also be significant. The attachment to this letter provides DTSC's detailed comments on the assessment.

DTSC has learned the OHMVR Commission was unaware of DTSC and OEHHA involvement in this process. During the course of this activity based risk assessment, the California State Parks, OHMVR (Parks) was kept informed of USEPA risk assessment activities. On at least two occasions, presentation of information was provided to Parks in meetings where DTSC was present. The May 13, 2005 meeting was held on Ninth Street in Sacramento where topics discussed included Parks general grant process, USEPA asbestos studies presentation, findings of an early BLM draft Resource Management Plan, and proposed dry season restriction and workshops. The

October 14, 2005 meeting was held at USEPA office in San Francisco where risk information results for September 2004, November 2004, and February 2005 activity based sampling events were presented to attendees.

DTSC has reviewed a Staff Report prepared by Kelly Long, OHMVR located on the internet which appears to be prepared for the upcoming April 29, 2010 Commission meeting. The Staff Report questions the validity of the USEPA Report's findings, conclusions and risk assessment and has contracted a study to review the report's findings and provide an OHV specific risk assessment. DTSC maintains that the EPA Study was comprehensive and included a multi-season, multi-scenario study with involvement from the California Environmental Protection Agency (Cal EPA). DTSC is concerned that the OHMVR contracted study may underestimate asbestos exposure to recreational users. The Staff Report also fails to mention Cal EPA's continuing full support of the USEPA risk assessment. We suggest the Commission not be unduly influenced by the San Benito County Board of Supervisor's endorsement of the No Action alternative in BLM's Draft RMP/EIS. DTSC comments to the public draft are attached for your consideration.

If you have any questions, please contact Mr. Richard Hume at (916) 255-3690.

Sincerely,

Charlie Ridenour

Charlie Ridenour, P.E.
Performance Manager
Cleanup Program – Sacramento Office

Attachments

cc: Ms. Jere Johnson
Remedial Project Manager
U. S. Environmental Protection Agency, Region 9
75 Hawthorne Street
Mail Code: SFD-7-2
San Francisco, California 94105

cc: United States Department of Interior
Bureau of Land Management
Attn: Mr. Rick Cooper
Hollister Field Manager
20 Hamilton Court
Hollister, California 95203-2535

Mr. David Berry
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street
Mail Code: 8EPR-PS
Denver, Colorado 80202-1129

Mr. John D. Budroe, Ph.D.
Air Toxicology and Epidemiology Section
Office of Environmental Health Hazard Assessment
1515 Clay Street, 16th Floor
Oakland, California 94612

Ms. Daphne Greene
Deputy Director
California State Parks
Off-Highway Motor Vehicle Recreation Division
P.O. Box 942896
Sacramento, California 94296-0001

Mr. Richard Hume, P.E.
Supervising Hazardous Substances Engineer I
National Priority List Unit
Brownfields and Environmental Restoration Program
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, California 95826

Mr. Steven Ross
Hazardous Substances Engineer
National Priority List Unit
Brownfields and Environmental Restoration Program
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, California 95826

Department of Toxic Substances Control

Maziar Movassaghi
Acting Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Linda S. Adams
Secretary for
Environmental Protection

Arnold Schwarzenegger
Governor

March 1, 2010

CCMA RMP/EIS Comments
Attention: Planning Coordinator
Bureau of Land Management
Hollister Field Manager
20 Hamilton Court
Hollister, California 95203-2535

DRAFT RESOURCE MANAGEMENT PLAN & ENVIRONMENTAL IMPACT STATEMENT (RMP/EIS) FOR THE CLEAR CREEK MANAGEMENT AREA (CCMA), SOUTHERN SAN BENITO AND WESTERN FRESNO COUNTY, CALIFORNIA

To Whom It May Concern:

Thank you for providing the Department of Toxic Substances Control (DTSC) an opportunity to review and comment on the draft RMP/EIS which was public noticed by the Bureau of Land Management (BLM) in November 2009.

Based on our review, the RMP/EIS identifies seven alternatives for managing the CCMA and identifies Alternative E as BLM's preferred alternative. According the RMP/EIS, Alternative E contains a selection of land use decisions and management actions which includes, but is not limited to, 1) access on the Scenic Route along T153 and Spanish Lake Road in the Serpentine Area of Critical Environmental Concern (ACEC) for day use by full-size vehicles only; 2) access by Special Recreation Permits only limiting visitor use in the area; 3) manage the Tucker, Condon, and Cantua Zones with emphasis on enhancing hunting and other non-motorized recreational opportunities; 4) improve access and enhance facilities to support non-motorized recreation opportunities in the Cantua Zone; 5) mitigate recreational facilities inside the Serpentine ACEC for public health and safety; 6) continue outreach and education program to create public and visitor awareness of human health risks from exposure to airborne asbestos fibers in CCMA; 7) use best available technologies for dust abatement on roads and during project implementation; 8) reduce emissions from recreation facilities and on major routes with dust suppression and surface hardening techniques as needed; and 9) cooperate with adjacent private landowners on land management activities.

DTSC agrees that the alternatives have been thoroughly established and continues to recommend that any alternative that is selected be evaluated for potential human health risk due to asbestos exposure and to implement mitigation measures as appropriate. As a recreational user of a proposed new area may encroach on the Atlas Asbestos Mine Operable Unit of the Superfund Site, the site should be secured as necessary from potential trespass.

From review of the document, the grouping of the management actions and BLM's preferred alternative are well defined in section 2. From our review of the RMP/EIS, the following comments are provided:

1. Recommend all possible precautions be used to minimize potential exposure to asbestos.
2. Map 5 contains boundaries for serpentine and non-serpentine formation. Recommend the existing and proposed new recreational facilities identified in Alternative E outside the ACEC be verified with USGS maps as clearly outside the overlying serpentine formation. If found, recommend assessing the existing and proposed routes for the occurrence of asbestos and use of activity based monitoring and assessment of potential risk as deemed necessary. Appropriate mitigation measures should be considered for minimizing asbestos exposures to all proposed uses. Consider similar scenarios to those assessed by USEPA for the ACEC to determine potential risk to adults and children using OHVs in these areas. Develop an activity based scenario for any new uses as well (e.g equestrian).
3. Recommend the road proposed for the scenic route through the ACEC be resurfaced to reduce asbestos emissions.
4. Consider reducing speed limits of 15-25 miles per hour on the scenic route to no more than 10 unless resurfacing to mitigate asbestos emissions is completed.
5. For potential asbestos areas, consider establishment of public use vehicle washing and HEPA vacuuming stations at the entrance(s) with standard operating procedures so that vehicles can be cleaned upon leaving.
6. Consider not allowing livestock grazing on the ACEC BLM managed lands in order to minimize dust generation and release of asbestos.
7. To the extent feasible, recommend adding precautions to protect fire fighters using Best management Practices from asbestos exposure during wildland fires and controlled burns within the ACEC.

8. Recommend for Best Management Practices (Appendix V) a) trigger for initiating each measure, b) conditions in which the management practices will be used, and c) measuring techniques and criteria for measuring effectiveness.

If you have any questions, please contact me at (916) 255-3694.

Sincerely,

Steven Ross
Hazardous Substances Engineer
National Priority List Unit
Brownfields and Environmental Restoration Program

cc: Mr. David Berry
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street
Mail Code: 8EPR-PS
Denver, Colorado 80202-1129

Department of Toxic Substances Control

Linda S. Adams
Secretary for
Environmental Protection

Maziar Movassaghi
Acting Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Arnold Schwarzenegger
Governor

April 21, 2009

United States Department of Interior
Bureau of Land Management
Attn: Mr. Rick Cooper
Hollister Field Manager
20 Hamilton Court
Hollister, California 95203-2535

ADMINISTRATIVE DRAFT RESOURCE MANAGEMENT PLAN FOR THE CLEAR CREEK MANAGEMENT AREA, SOUTHERN SAN BENITO AND WESTERN FRESNO COUNTY, CALIFORNIA

Dear Mr. Cooper:

Thank you for providing the Department of Toxic Substances Control (DTSC) an opportunity to participate in the March 26, 2009 meeting in Sacramento and to review the Bureau of Land Management (BLM) Administrative Draft Resource Management Plan (RMP) for the Clear Creek Management Area (CCMA). The CCMA encompasses approximately 75,000 acres of which BLM manages 63,000 acres of public lands.

As you know, the CCMA is identified as a distinct geographical area in the United States Environmental Protection Agency Record of Decision for the Atlas Asbestos Mine Superfund Site. DTSC review focused primarily on those aspects of the BLM land use alternatives that pertain to evaluating potential risk to human health from exposure to asbestos found within the CCMA and whether Atlas Mine Operable Unit is secured from potential trespass allowing for eventual delisting from the federal Superfund list after a final land use decision.

From review of the document, it was difficult to comprehend all management actions for each of the alternatives. Grouping all management actions for each alternative would be useful to the reader. From our understanding of the BLM preferred alternative, the following management actions **inside** the Serpentine Area of Critical Environmental Concern (ACEC) are intended to meet objectives of minimizing public exposure to asbestos:

1. Install gates at entrance points to manage motorized access.

2. Install, replace and maintain signs and boundary markers to maximize public safety and enjoyment of public lands.
3. Acquire lands from willing sellers with high value for special status species, other biological resources, and recreational opportunities and to augment the management efficiency.
4. No Off Highway Vehicle use.
5. No Camping allowed.
6. Terminate public right-of way on County roads and visitor use fee program.
7. Authorize access to private landowners, existing rights-of-ways and utility corridors.
8. Authorize access by permit only no more than five days/year for motorized activity limited to vehicle touring along 11-mile scenic route that follows T153 and Spanish Lake Road.
9. Authorize access by permit only no more than 12 days/year for non-motorized activity limited to pedestrian trail day use opportunities of unique scenic, natural or geologic features. These non-motorized recreational activities include hiking, hunting, target shooting, rock-hounding, mountain bike and equestrian use.
10. No mineral leasing or sales on public lands and withdrawal of 30,200 acre ACEC from locatable mineral entry under the 1872 Mining Law.
11. Authorize special recreation permits for hobby gem and mineral collection on a case by case basis.
12. Develop and maintain transportation facilities (i.e. pull-outs and parking areas) on portions of T153 and Spanish Lake Road (R11) and other destinations with unique biological, natural and geologic features.
13. Mitigation measures to reduce emissions at staging areas, existing recreational facilities and designated major route network through surface hardening or other dust suppression techniques (paving, base rock, chip seal, or applications of surfactants) to stabilize and solidify soils or aggregates and control erosion.
14. Restrictions on access and use during extreme weather conditions and enforce temporary closures. Establish remote automated weather station or apply the use of other available technologies to monitor soil moisture to determine need for closure based on extreme weather conditions.
15. Augment existing public health risk awareness through improved signing, hand-outs (maps and brochures), advisories, monitoring, public

contact and education programs with best available information concerning asbestos health hazards.

16. Rehabilitate surface-disturbing areas through use of vegetative materials. Require an erosion control strategy and topsoil segregation/restoration plan for proposals involving surface disturbance on slopes of 20 to 40 percent.
17. Consider signed waivers of liability and enforcement of speed limits (15-25 mph) on major route network.
18. Continue proper handling of hazardous materials and wastes.
19. Continue to identify mine-related illegal dumps, private land hazards (eliminate or mitigate as soon as possible.
20. Continue to identify and resolve mining-related trespasses, especially public safety conflicts occurring with visitor use.

Attached as Exhibit A, you will find our toxicologists comments regarding the ACEC and proposed new recreation facilities outside the ACEC. Please address the comments identified in a revised RMP.

Regarding the Atlas Mine Operable Unit, DTSC requests the fence extend to secure the site from trespass near the northern boundary of Pond A. At the nearest distance, this area appears to be less than 4 miles from the proposed new recreational facilities in the Cantua Zone and two miles from the proposed scenic route. As you can see from Exhibit B, there is an approximate 2000 foot gap where trespass may occur along disturbed mine areas on BLM managed lands and the affected privately owned parcel. Please provide a satisfactory proposal so institutional controls in the form of enforceable land use covenants may be fully explored.

If you have any questions, please contact me at (916) 255-3694.

Sincerely,

Steven Ross
Hazardous Substances Engineer
Brownfields and Environmental Restoration Program

Attachments

EXHIBIT A

DTSC MEMORANDUM

Linda S. Adams
Secretary for Environmental Protection

Department of Toxic Substances Control

Maziar Movassaghi
Acting Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Arnold Schwarzenegger
Governor

M E M O R A N D U M

TO: Mr. Steven Ross, P.E.
Northern California Cleanup Operations
NPL Unit
8800 Cal Center Drive
Sacramento, California 95826-3200

From: Fran Collier, M.S. David L Berry for Fran Collier
Associate Toxicologist
Human and Ecological Risk Division

David Berry, Ph. D. David L. Berry
Senior Toxicologist
Human and Ecological Risk Division

Date: **April 16, 2009**

SUBJECT: Clear Creek Management Area Draft Resource Management Plan/Environmental Impact Statement

PCA: 11090 **Site Code:** 101717 **WP:** 00

The Human and Ecological Risk Division (HERD) has been asked to review the Clear Creek Management Area Draft Resource Management Plan/Environmental Impact Statement (RMP) prepared by the United States Bureau of Land Management (BLM). The document is undated and was sent electronically to the Department of Toxic Substances Control (DTSC) on March 23, 2009. .

Background

The Clear Creek Management Area (CCMA) is located in the highly mineralized New Idria area that is known for extensive serpentine deposits. The area has been commercially mined from the 1850s through 2002 for mercury, asbestos and gems. The landscape is generally rugged with steep topography with sparsely vegetated to barren slopes. Seven special status plant species are found in the CCMA. The CCMA was, until recently, primarily used as an off road vehicle (OHV) park where all terrain vehicles (ATVs), motorcycles and sport utility vehicles (SUVs) were used for recreational hill climbing and trail riding on the estimated 242 miles of unpaved trails.

CCMA was also used for hiking, hunting and camping, rock collecting, botanical and other recreational activities. The CCMA is managed by BLM who estimates up to 50,000 visitors per year have traditionally used the site, primarily in the cooler winter months. Several motor cross events were held each year at the CCMA. Recreational users include adults, children, and families.

BLM is in the process of amending the CCMA management plan. Previous studies have shown that extensive dust containing high concentrations of asbestos is generated from the CCMA vehicular activities. Asbestos is a known human carcinogen that causes lung cancer and mesothelioma. Asbestos also causes incurable diseases such as pleural diseases and asbestosis. The long lag time between first exposure and manifestation of disease symptoms (10 to 40 year) also contributes to public health concerns about asbestos exposure. In order to aid BLM in managing the CCMA to protect human health, USEPA, with encouragement from the California Air Resources Board (CARB) and DTSC, conducted studies to assess potential risk from exposure to asbestos dust generated from CCMA activities for both recreational users and workers. USEPA conducted activity-based monitoring in 2004 and 2005 during both dry and wet weather conditions. Studies were conducted for several individual recreational activities including camping, hiking, vehicle washing and vacuuming, motorcycle and ATV riding and working conditions such as patrolling, camp ground maintenance and fence building. Results from individual activities were bundled into four recreational scenarios and three worker scenarios for evaluating cumulative risk. Ambient air samples were also collected at four locations during the same sampling periods that the activity-based monitoring studies were being conducted.

Activity-based air samples were collected by USEPA contractors performing the activities while wearing personal air pump sampling devices that collect particulate matter, including asbestos fibers on filters for microscopic evaluation by Transmission Electron Microscopy. Asbestos fibers were identified and counted using ISO Method 10312. All asbestos fibers were individually identified and measured that have an aspect ratio of 3:1, and between 0.25 and 3 microns wide regardless of length. Those fibers that were greater than 5 microns in length were counted as Phase Contrast Microscopy equivalent (PCMe) fibers. The PCMe fiber count is used as the exposure point concentration for calculating potential incremental risk. The cancer slope factors used by both USEPA and the California Office of Environmental Health Hazard Assessment (OEHHA) are based on PCM assessment that can only accurately measure fibers greater than or equal to 5 microns in length. Shorter fibers are believed to contribute to potential risk; however studies to quantify risk from short fibers have not been performed.

USEPA calculated potential risk using both minimum and maximum concentrations of asbestos measured for each activity. Calculations were also performed using both USEPA and OEHHA cancer slope factors. Calculations for both adult only, child only, and age adjusted combination of adult and child were made. Risks were calculated for each activity/scenario for 1, 5 and 12 exposure events per year for adult, child and adult/child ages. Although USEPA is intending to propose a reference concentration

(RfC) concentration for asbestos in the near future, an RfC does not currently exist. As a result, potential non-cancer hazard from asbestos exposure was not calculated.

Asbestos exposure point concentrations ranged from 0.00027 fibers/cubic centimeter (f/cc) to 2.00 f/cc for individual activities. It is worthy to note that the OSHA Permissible Exposure Limit (PEL) is 0.10 f/cc. The risk assessment results show elevated and unacceptable excess lifetime cancer risk for many of the activities and scenarios, even for brief duration and infrequent exposures and regardless of weather conditions. Calculated risk for the maximum exposure point concentrations were as great as a high .of 8 in 100 for adults, a high of 4 in 1000 for children, and a high of 3 in 100 for the for combined adult/child age exposures [based on OEHHA methodology]. USEPA considers exposures that result in theoretical excess cancer risks exceeding 1 in 10,000 excess cancers to be of concern and require action to reduce the exposure and resulting risk. Theoretical excess cancer risks for all uses exceed 1 in 10,000 for exposures lasting more than one day per year. Risks associated with vehicle activities exceed the 1 in 10,000 even for exposures of one day per year.

As a result of these studies, BLM temporarily closed the CCMA to all activities until a new RMP could be developed and implemented. The draft 2009 RMP evaluates seven alternative management scenarios ranging from resuming the full extent of previous uses (No Action Alternative A) to sustaining the complete closure of the designated Serpentine Area of Critical Environmental Concern (ACEC) (Alternative G). The RMP evaluates the scenarios for protection of human health as well as resource management. BLM proposes adopting Alternative E, although the RMP notes that various other combinations of management options within each of the 7 alternatives could be considered for the final RMP.

Alternative E would allow for limited vehicle touring through the ACEC along the 11-mile scenic route that follows T153 and Spanish Lake Road from Idria to Wright Mountain. Pedestrian day trail use opportunities would be allowed at scenic locations along the scenic route at designated locations. Access would be allowed by permit only and limited to 5 days per year (d/yr) for vehicle use, 12 d/yr for pedestrian use, private land owners, existing rights of ways and utility corridors. Access would be restricted during extreme weather conditions and dust mitigation measures would be used at existing recreational facilities and on the designated vehicle routes. A remote automated weather station or other available technology will be established to monitor soil moisture to determine need for closure. No OHV use or camping would be allowed in the ACEC. Full size vehicles and All Terrain Vehicle (ATV) use opportunities would be developed in the public lands of Condon Peak and San Carlos Bolsa (Cantua Zone), where appropriate. Pedestrian use, hunting and non-motorized recreation uses would also be emphasized in areas outside the ACEC. Rehabilitate surface disturbance areas through use of vegetative materials and an erosion control strategy for proposals involving surface disturbances on slope of 20 to 40 percent. Install and maintain signs and boundary markers to maximize public safety and enjoyment of public lands. No mineral leasing or sales on public lands and withdrawal of 30,200 acre ACEC from locatable mineral entry under the 1872 Mining Law. Authorize special recreation

permits for hobby gem and mineral collection on a case by case basis. Acquire lands from willing sellers in the CCMA with high value for special status species, other biological resources, and recreational opportunities as well as augmenting the management efficiency of the CCMA. Consider signed waivers of liability and enforcement of speed limits on major route network. Continue to identify mine-related illegal dumps, private land hazards (eliminate or mitigate as soon as possible). Continue to identify and resolve mining-related trespasses, especially public safety conflicts occurring with visitor use. Augment existing public health risk awareness through hand-outs (maps and brochures), advisories, monitoring, public contact and education programs with best available information concerning asbestos health hazards.

BLM proposes to revise the draft RMP for release to the public for review and comment by early May, 2009. Public meetings in summer and fall 2009 will be held to receive input on the proposed management strategy.

Scope of Review

HERD has reviewed this document with emphasis on those aspects that pertain to evaluating potential risk to human health from exposure to asbestos found within the CCMA. HERD has not reviewed, nor is commenting on the resource protection measures proposed except for their potential impacts on human health. Grammatical or typographical errors that do not affect the evaluation have not been noted.

Documents reviewed

HERD has reviewed the Clear Creek Management Area Draft Resource Management Plan/Environmental Impact Statement (RMP) prepared by the United States Bureau of Land Management (BLM). The document is undated and was received by HERD on March 23, 2009.

GENERAL COMMENTS

1. HERD notes that the RMP provides revised risk assessment calculations from the 2008 USEPA risk assessment based on refined estimates of exposure duration primarily for driving to and from recreational opportunities within the CCMA. The revised calculations still show significant incremental, theoretical excess cancer risk for all recreational users, particularly when OHV uses are occurring at the same time as other activities. Although the risk evaluation does not include evaluation of non-cancer endpoints, the occurrence of non-cancer potential health effects due to asbestos exposure could be significant. Other studies have shown that non carcinogenic effects can occur at greater frequency than carcinogenic disease. As such HERD recommends that all possible precautions be used to minimize potential exposure to asbestos in the CCMA.

2. HERD recomments that the boundaries of the new recreation facilities outside the ACEC be verified for the overlying serpentine formation and re draft accordingly. The USGS mapped the area and BLM needs to verify that their proposed boundaries are appropriate to minimize asbestos exposure to all proposed uses.

3. HERD concurs that unacceptable potential risk exists for OHV use in the ACEC areas of CCMA for adults and especially for children. Although USEPA's risk assessment did not evaluate mechanized recreation such as cycling on trails, HERD observes that these activities also can generate significant dust clouds. HERD recommends that activity based monitoring be conducted for these activities and potential risk assessed for adults and children prior to allowing these activities in the ACEC under any of the proposed alternatives.

4. HERD recommends that existing and proposed OHV routes in the Tucker Mountain, Condon Peak and San Carlos Bolsa (Cantua Zone) be assessed for potential asbestos emissions, including geologic review and mapping and activity based monitoring, if warranted in potential asbestos areas, using similar scenarios to those assessed by USEPA for the ACEC to determine potential risk to adults and children using OHVs in these areas. HERD also recommends developing an activity based scenario for mechanized recreation such as mountain cycling on these trails as well as equestrian uses.

5. HERD also recommends that the proposed scenic route through the ACEC be resurfaced to reduce asbestos emissions [i.e., see Table 4.3-x]. A DTSC study on SloDusty road showed significant reduction in asbestos emissions by resurfacing a serpentine aggregate road.

6. HERD also recommends that, regardless of the management alternatives selected, that vehicle washing and HEPA vacuuming stations be established at the entrances at CCMA entrances so that vehicles can be cleaned upon leaving the CCMA. HERD recommends that SOPs be developed for cleaning and maintenance of these stations as track-out can result in significant exposure(s).

7. HERD recommends that that text and tables in the RMP identify the specific measures described in Appendix V for each of the management strategies and resource protection goals described in Chapters 2 and 4. Various sections of the document refer to application of mitigation measures, Best Management Practices (BMPs) and/or restoration however the text in Chapter 2 and Chapter 4 does not specifically identify the measures that might be for the various management strategies in each alternative.

8. HERD recommends that Appendix V describe the conditions in which the management practices will be used as well as measurement techniques and criteria for measuring effectiveness of these measures. Although Appendix V lists various measures, it does not describe what will trigger the initiation of each measure nor does it describe how effectiveness will be measured.

9. HERD recommends that the document be critically edited such that the language in each of the sections is internally consistent and that reference to tables is correct.

SPECIFIC COMMENTS

Chapter 2: Analysis of Alternatives

HERD offers the following specific comments organized according to the 7 management alternatives, first for the measures that are common to all proposed alternatives, then for BLM's proposed Alternative E followed by Alternatives A, B, C, D, F and G.

Common Measures:

1. Section 2.3 Elements Common to All Alternatives; Recreation and Access: HERD recommends that any rights of ways for existing communication sites and private land owners through BLM lands be mitigated to reduce asbestos emissions from theses uses. These uses were not assessed as part of USEPA's risk evaluation, so potential risk due to these uses is unknown. As such, mitigation measures to minimize asbestos emissions from these activities should be used.

2. Section 2.3 Elements Common to All Alternatives: Public Health and Safety: HERD recommends that the Best Management Practices (BMPs) proposed by BLM be clearly identified and described for each alternative in the RMP text, including assessing the effectiveness of reducing asbestos emissions from allowable activities.

3. Section 2.4.1.1 Recreation Goals and Objectives; Recreation and Allowable Use Definitions: HERD recommends removing "equestrian use" from the "non-motorized" definition category. All the alternatives, except G, permit non-motorized uses in the ACEC. Horses can raise significant dust that can impact trailing riders. Equestrian use was not evaluated in the USEPA activity based monitoring or risk evaluation. Alternatively, BLM and USEPA could conduct activity based monitoring and evaluate risk from equestrian use in the ACEC.

4. Section 2.4.2.1 Hazardous Materials and Public Safety Goals and Objectives: HERD recommends adding enhancing public safety by minimizing potential exposure to releases of asbestos from activities conducted in CCMA.

5. Section 2.4.2.3 Hazardous Materials and Public Safety Management Actions Common to Alternatives B through G: HERD recommends reducing the proposed speed limits of 15-25 miles per hour (mph) on the major route network to no more than 10 miles per hour unless the roads and trails in the ACEC are resurfaced to prevent dust emissions. The "Serpentine Road Study in Garden Valley, California" referenced in the RMP showed that although asbestos emissions occurred at 10 mph on serpentine aggregate, the emissions were an order of magnitude less than

traveling the same road at 35 mph. As noted in the RMP, the study showed that application of BMPs such as resurfacing further reduced these emissions.

6. Section 2.4.3.2 No Action Alternative (Management Actions); Note: The "Note" in the first paragraph is confusing to this reader. It seems to imply that all options under Alternative A apply to the other alternatives. Language on exceptions is vague. As such, HERD recommends that management actions be clearly identified for each specific alternative, even though ones that are common to more than one alternative will be repeated. This is particularly important for the "Routes", as each alternative proposes different routes and uses as shown on their respective maps.

7. Section 2.4.3.2 No Action Alternative (Management Actions); A. Routes: HERD recommends that "occurrence of asbestos" be added to the list of designation criteria in the first paragraph of this section.

8. Section 2.4.4.2 Biological Resources—Vegetation Resources: The "Note" in the first paragraph is confusing to this reader. It seems to imply that all options under Alternative A apply to the other alternatives. Language on exceptions is vague. As such, HERD recommends that management actions be clearly identified for each specific alternative, even though ones that are common to more than one alternative will be repeated.

9. Section 2.4.4 Biological Resources—Vegetation Resources, Section 2.4.5 Biological Resources—Wildlife Habitat, Section 2.4.6 Biological Resources – Special Status Species, Section 2.4.8 Soil Resources and Section 2.4.9 Water Resources and Section 2.4.13 Cultural Resources, Section 2.4.14 Paleontological Resources : HERD recommends that appropriate measures to minimize exposure to asbestos be added to the subsections to protect workers and other users who are maintaining or harvesting vegetation including timber, maintaining wildlife habitat and protecting the soil and watershed resources. HERD supports the proposal to re-vegetate areas and trails within the ACEC that have been impacted by OHV activity or other activities which show significant barrens. Re-vegetation will help to reduce wind generated dust and asbestos emissions from these areas and slow erosion.

10. Section 2.4.7 Air Quality: HERD recommends adding language to minimize releases of asbestos to the air in the appropriate subsections.

11. Section 2.4.10 Special Management Areas—ACEC/RNA: HERD recommends adding measures to these subsections that include health and safety protection measures to minimize asbestos exposure to workers and others who are using these areas for environmental restoration and maintenance. The emphasis appears to be education and awareness; however other mitigation measures to minimize asbestos emissions should also be evaluated for the various tasks to be performed in addition to dust suppression on access roads.

12. Section 2.4.11 Livestock Grazing: HERD recommends not allowing livestock grazing on the ACEC BLM managed lands in order to minimize dust generation and release of asbestos.

13. Section 2.4.12 Energy and Minerals: HERD recommends not allowing mining and energy generation activities on BLM managed lands in the ACEC to minimize dust generation and release of asbestos to the air.

14. Section 2.4.15 Social and Economic Conditions, Section 2.4.26 Visual Resources Management: HERD recommends that these subsections include measures for educating and initiating health protective measures to minimize asbestos exposure as part of balancing social and economic management of CCMA resources.

15. Section 2.4.17 Fire Management: To the extent feasible, HERD recommends adding precautions to protect fire fighters using BMP from asbestos exposure during wildland fires and controlled burns within the CCMA.

Alternative E:

1. Section 2.4.1.6 Management Actions Alternative E; REC-USE-E4: HERD recommends assessing existing and potential trails and locations of other facilities in the Cantua area for the occurrence of asbestos. HERD recommends that these facilities be located in areas that do not contain serpentine rock or other minerals that contain asbestos. If needed, HERD recommends conducting activity based monitoring and assessing potential risk from asbestos exposure prior to allowing recreational uses.

2. Section 2.4.1.12: Visitor Services Common to Alternative E and F; all: See comment #1 above.

3. Section 2.4.3.5 Management Actions for Alternative E TRANS E4: HERD recommends assessing the existing and proposed routes for the occurrence of asbestos. If found, routes should be evaluated using activity based monitoring and assessment of potential risk.

4. Tables 4.2.2 and 4.2.6 Risk Calculations: HERD recommends limiting day use hiking and hunting to no more than 5 days per year. These tables show significant risk for hiking and hunting for 12 days per year, which is proposed for alternative E. Spreadsheets showing risk calculations for Alternative E assume that hiking occurs for only 4 hours per day, which may represent the average amount of time, rather than the reasonable maximum exposure estimated time for hiking.

Alternative A No Action:
Because of the extensive OHV use in the ACEC, calculations show unacceptable risk for proposed uses and activity durations. As such HERD does not support adopting this

Alternative unless mitigation measures are used that demonstrate that asbestos emissions and exposures have been reduced to protective levels.

Alternative B:
This alternative is basically the same as Alternative A, however the dry season of no OHV use in the ACEC would be extended and the number of annual visitor days would be limited. Risk calculations show unacceptable risk for both adults and children for OHV use and other recreational activities. As such, HERD does not support adopting this option unless mitigation measures are used that demonstrate that asbestos emissions and exposures have been reduced to health protective levels.

Alternative C:
This alternative also reduces the amount of time and duration for OHV use and would not allow anyone under the age of 18 to visit the CCMA. While this alternative addresses potential risks of asbestos exposure to children visiting the CCMA, calculations still show unacceptable risk for adults, particularly for OHV usage. As such, HERD does not support adopting this option unless mitigation measures are used that demonstrate that asbestos emissions and exposures have been reduced to health protective levels.

Alternative D:
This alternative would allow full size vehicle use year round on existing roads and dry season routes in the ACEC. Risk calculations show unacceptable risk for both adults and children for vehicle use and other recreational activities for more than 5 days per year. HERD recommends that use be limited to less than 5 days per year and that above comments pertaining to roads and other best management practices be addressed if Alternative D will be considered. BLM should demonstrate that mitigation measures are being used that reduce asbestos emissions and exposures to health protective levels.

Alternative F:
This alternative would not allow any motorized vehicle use in the ACEC. Pedestrian and non motorized vehicle use would be allowed. Risk calculations show potential risk is within risk management range for hiking and hunting up to 12 days per year. HERD recommends that access be limited to no more than 12 days per year and that the above comments be addressed if Alternative F will considered.

Alternative G:
This alternative would close the ACEC for all uses. Because no access would be allowed, potential risk calculations were not performed. HERD recommends that areas outside the ACEC be evaluated for potential exposures to asbestos under the various proposed uses.

Chapter 4: Environmental Consequences

Section 4.1.1 Recreation Introduction: HERD recommends that impacts to users from "mechanized" uses also be evaluated. This section only proposes two categories, motorized and non-motorized, while Chapter 2 provides analysis of three categories, motorized, mechanized and non-motorized.

Appendix V: Mitigation Measures

MP-17 Dust Mitigation: HERD recommends that this section be expanded to include descriptions of monitoring techniques and frequency. In addition this section should describe the conditions that will trigger dust mitigation measures and how effectiveness of the mitigation measures will be assessed.

CONCLUSIONS AND RECOMMENDATIONS

Risk calculations show significant risk for all recreational users, particularly when OHV uses are occurring at the same time as other activities. Although the risk evaluation does not include evaluation of non-cancer endpoints, the occurrence of non-cancer potential health effects due to asbestos exposure could be significant. Other studies have shown that non carcinogenic effects can occur at a much greater frequency than carcinogenic disease. There is a great deal of uncertainty in developing management practices on a theoretical carcinogenic risk endpoint and not considering the non-cancer, threshold effects for other asbestos related diseases in the management decision. As such HERD recommends that all possible precautions be used to minimize potential human exposure to asbestos in the CCMA regardless the management alternatives that are selected. Further, HERD recommends that regular monitoring be initiated to demonstrate that mitigation measures are effectively reducing asbestos emissions and potential risk to acceptable levels that protect human health as well as the environment. If the measures are not effective, HERD recommends that the recreational or commercial uses be discontinued until effective measures can be put in place in the CCMA to reduce exposure to asbestos to acceptable levels.

HERD recommends that the above comments be addressed in a revised RMP.

Reviewed by: Gerald A. Pollock, Ph.D.
Senior Toxicologist, HERD

EXHIBIT B

ATLAS SITE FEATURES

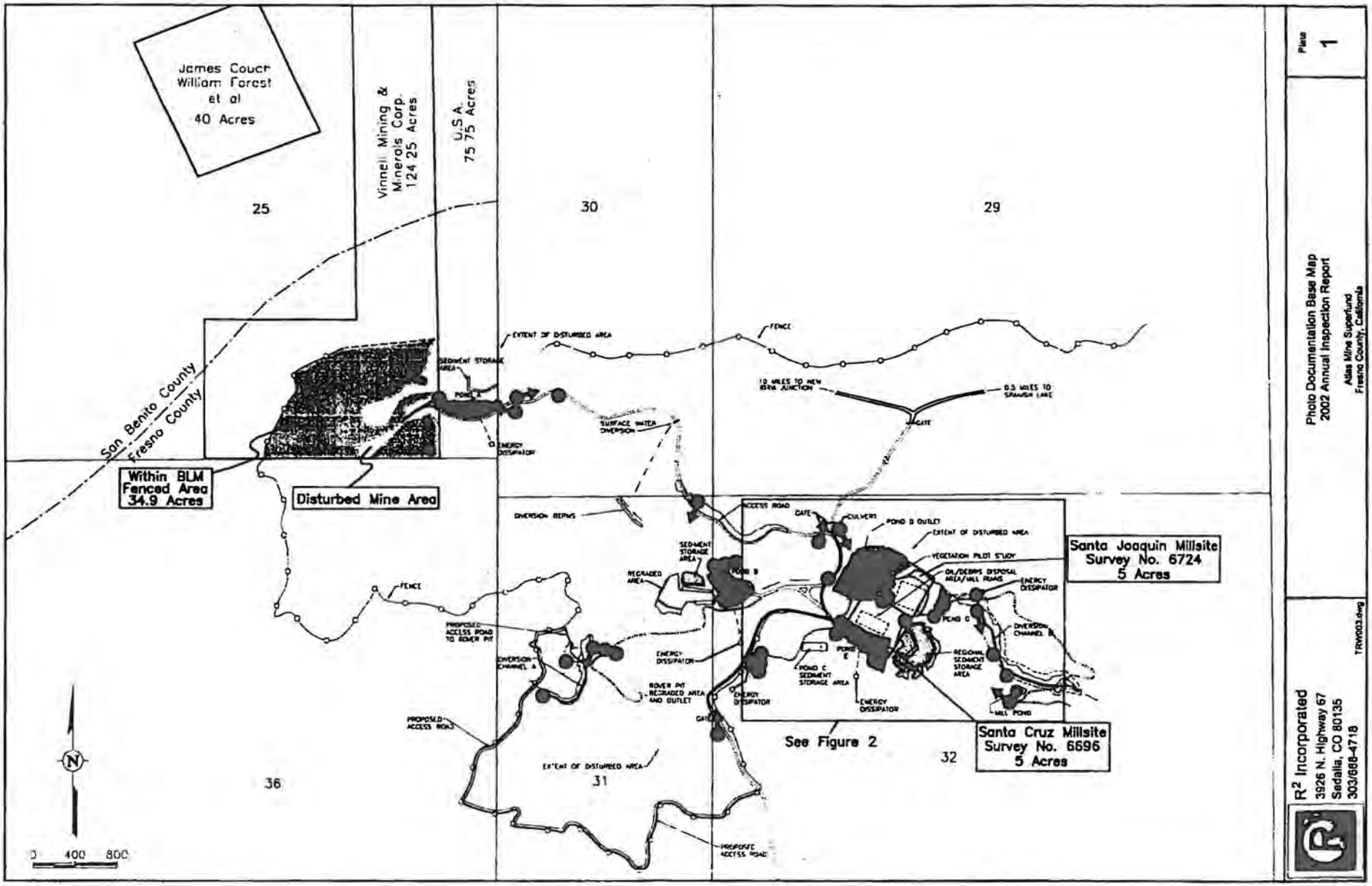


Photo Documentation Base Map
2002 Annual Inspection Report
Atlas Mine Superfund
Fresno County, California

Plate 1

R² Incorporated
3926 N. Highway 67
Sedalia, CO 80135
303/688-4718

TRW1003.dwg

Office of Environmental Health Hazard Assessment

Joan E. Denton, Ph.D., Director
Headquarters • 1001 I Street • Sacramento, California 95814
Mailing Address: P.O. Box 4010 • Sacramento, California 95812-4010
Oakland Office • Mailing Address: 1515 Clay Street, 16th Floor • Oakland, California 94612

Linda S. Adams
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

May 4, 2010

Mr. Gary Willard, Chair
OHMVR Commission
P.O. Box 942896
Sacramento, California 94296-0001

Dear Mr. Willard:

The Office of Environmental Health Hazard Assessment (OEHHA) informally reviewed the document "Clear Creek Management Area Asbestos Exposure and Human Health Risk Assessment," which was released by the United States Environmental Protection Agency (U.S. EPA) Region 9 office in 2008. OEHHA found the methodology and conclusions contained in the document were scientifically justified. OEHHA conveyed that finding verbally to U.S. EPA Region 9 staff. The human activity at Clear Creek and in particular the entrainment of asbestos fibers into the air from recreational vehicles poses an elevated cancer risk, particularly to the young riders.

OEHHA has reviewed the April 22, 2010 letter from Mr. Charlie Ridenour of the Department of Toxic Substances Control (DTSC) concerning the Clear Creek Management Area (CCMA) risk assessment documents and activities. OEHHA agrees with the findings and conclusions of the DTSC letter, particularly the finding that the U.S. EPA study was comprehensive and found elevated cancer risks from exposure to asbestos, a known human carcinogen, entrained by vehicle riders at CCMA. OEHHA fully supports the U.S. EPA Region 9 CCMA risk assessment activities. We hope the Off-Highway Motor Vehicle Recreation Commission finds this information useful. If you require any additional information, please feel free to call or contact Dr. John Budroe at (510) 622-3145.

Sincerely,

George V. Alexeeff, Ph.D., D.A.B.T.
Deputy Director for Scientific Affairs

cc: See next page.

cc: Ms. Jere Johnson
Remedial Project Manager
U. S. Environmental Protection Agency, Region 9
75 Hawthorne Street
Mail Code: SFD-7-2
San Francisco, California 94105

United States Department of Interior
Bureau of Land Management
Attn: Mr. Rick Cooper
Hollister Field Manager
20 Hamilton Court
Hollister, California 95203-2535

Mr. David Berry
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street
Mail Code: 8EPR-PS
Denver, Colorado 80202-1129

Mr. Charlie Ridenour, P.E.
Performance Manager
Cleanup Program - Sacramento Office
Department of Toxic Substance Control
8800 Cal Center Drive
Sacramento, California 95826-3200

Ms. Daphne Greene
Deputy Director
California State Parks
Off-Highway Motor Vehicle Recreation Division
P.O. Box 942896
Sacramento, California 94296-0001

Mr. Richard Hume, P.E.
Supervising Hazardous Substances Engineer I
National Priority List Unit
Brownfields and Environmental Restoration Program
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, California 95826

Mr. Steven Ross
Hazardous Substances Engineer
National Priority List Unit
Brownfields and Environmental Restoration Program
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, California 95826